Amendment to the Claims:

This listing of claims will replace the claims in the application.

1. (original) A radiation imaging apparatus comprising:

a radiation generating source for radiating radiation to a subject;

a rotating unit for rotating the subject exposed to the radiation from the radiation generating source;

a two-dimensional detector for detecting the radiation; and

a calculating unit for calculating a distance between the radiation generating source and the two-dimensional detector.

2. (original) A radiation imaging apparatus comprising:

a radiation generating source for radiating radiation to a subject;

a rotating unit for rotating the subject exposed to the radiation from the radiation generating source;

a two-dimensional detector for detecting the radiation; and

a calculating unit for calculating a distance between the radiation generating source and the two-dimensional detector;

wherein the radiation generating source and the two-dimensional detector are disposed at locations a distance which is the distance calculated by the calculating unit.

3. (original) A radiation imaging apparatus comprising:

a radiation generating source for radiating radiation to a subject;

a rotating unit for rotating the subject exposed to the radiation from the radiation generating source;

a two-dimensional detector for detecting the radiation;

a calculating unit for calculating a distance between the radiation generating source and the two-dimensional detector; and

a radiation generating source moving unit for disposing the radiation generating source and the two-dimensional detector at locations a distance which is the distance calculated by the calculating unit.

4. (currently amended) An apparatus according to ~~any one of claims 1 to 3~~, claim 1 wherein a cone angle of the radiation from the radiation generating source is selected to be in a range between six ~~(6)~~ degrees and ten ~~(10)~~ degrees based on either of information of the subject and information of imaging conditions, and the calculating unit calculates the distance between the radiation generating source and the two-dimensional detector based on the selected cone angle.

5. (currently amended) An apparatus according to ~~any one of claims 1 to 3~~, claim 1 wherein there is provided for the calculating unit an input unit for inputting information of the subject, such as a height of a lung field, a body height, and a weight of the subject, and the calculating unit calculates the distance between the radiation generating source and the two-dimensional detector based on the information of the subject.

6. (currently amended) An apparatus according to claim 4, wherein the calculating unit calculates the distance FDD [mm] between the radiation generating source and the two-dimensional detector based on the following relation

$FDD=0.5xFOV+Q.5xHOV/\tan(\Phi/2)$ [mm]

where FOv [mm] is an effective diameter of field of view, HOV [mm] is a reconstruction height, and Φ [degree] is the cone angle.

7. (original) An apparatus according to claim 6, wherein there is provided for the calculating unit an input unit for inputting information of the subject, such as a height of a lung field, a body height, and a weight of the subject, and the calculating unit calculates the HOV based on the information of the subject.

8. (currently amended) An apparatus according to any one of ~~claims 1 to 3~~, claim 1 wherein the calculating unit calculates the distance FDD [mm] between the radiation generating source and the two—dimensional detector based on the following relation

FDD=3417xSQRT(DxExT/84.6) [mm]

where an anodic heat capacity is equal to or less than D [KHU], a cooling ability is equal to or less than E [1/min, and a CT scanning interval is T [min].

9. (original) An apparatus according to claim 8, wherein there is provided for the calculating unit an input unit for inputting information of imaging conditions, such as an anodic heat capacity, a cooling ability, and a CT scanning interval, and the calculating unit calculates the FDD based on the information of the imaging conditions.

10. (currently amended) A radiation imaging apparatus comprising:

a radiation generating source for radiating radiation to a subject;

a rotating unit for rotating the subject exposed to the radiation from the radiation generating source; and

a two-dimensional detector for detecting the radiation;

wherein the radiation generating source and the two-dimensional detector are disposed at locations a distance which is in a range between 240 cm and 400 cm, where an imaging height (HOV) is equal to or more than 35 cm, an effective diameter of field of view (FOV) is equal to or more than 39 cm, a tube anodic heat capacity of the radiation generating source is equal to or

less than 300 KHU, a tube cooling ability is equal to or less than 20 [1/min], and a ~~radioraphy~~ radiography interval is equal to or less than two (2) minutes.

11. (original) A radiation imaging apparatus comprising:

a radiation generating source for radiating radiation to a subject;

a rotating unit for rotating the subject exposed to the radiation from the radiation generating source; and

a two-dimensional detector for detecting the radiation;

wherein the radiation generating source and the two-dimensional detector are disposed at locations a distance between which is in a range between 200 cm and 400 cm in a case of imaging a chest area.

12. (currently amended) An apparatus according to ~~any one of claims 1 to 3~~, claim 1 further comprising a reconstruction unit for reconstructing an output signal from the two-dimensional detector.

13. (new) An apparatus according to any one of claim 2, wherein a cone angle of the radiation from the radiation generating source is selected to be in a range between six ~~(6)~~ degrees and ten ~~(10)~~ degrees based on either of information of the subject and information of imaging conditions, and the calculating unit calculates the distance between the radiation generating source and the two-dimensional detector based on the selected cone angle.

14. (new) An apparatus according to any one of claim 3, wherein a cone angle of the radiation from the radiation generating source is selected to be in a range between six ~~(6)~~ degrees and ten ~~(10)~~ degrees based on either of information of the subject and information of imaging conditions, and the calculating unit calculates the distance between the radiation generating source and the two-dimensional detector based on the selected cone angle.

15. (new) An apparatus according to any one of claim 2, wherein there is provided for the calculating unit an input unit for inputting information of the subject, such as a height of a lung field, a body height, and a weight of the subject, and the calculating unit calculates the distance between the radiation generating source and the two-dimensional detector based on the information of the subject.

16. (new) An apparatus according to any one of claim 3, wherein there is provided for the calculating unit an input unit for inputting information of the subject, such as a height of a lung field, a body height, and a weight of the subject, and the calculating unit calculates the distance between the radiation generating source and the two-dimensional detector based on the information of the subject.

17. (new) An apparatus according to any one of claims 2, wherein the calculating unit calculates the distance FDD [mm] between the radiation generating source and the two—dimensional detector based on the following relation

FDD=3417xSQRT(DxExT/84.6) [mm]

where an anodic heat capacity is equal to or less than D [KHU], a cooling ability is equal to or less than E [1/min, and a CT scanning interval is T [min].

18. (new) An apparatus according to any one of claims 3, wherein the calculating unit calculates the distance FDD [mm] between the radiation generating source and the two—dimensional detector based on the following relation

FDD=3417xSQRT(DxExT/84.6) [mm]

where an anodic heat capacity is equal to or less than D [KHU], a cooling ability is equal to or less than E [1/min, and a CT scanning interval is T [min].

19. (new) An apparatus according to claims 2, further comprising a reconstruction unit for reconstructing an output signal from the two- dimensional detector.

20. (new) An apparatus according to claim 3, further comprising a reconstruction unit for reconstructing an output signal from the two- dimensional detector.